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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

AZAD, ABUL K

ART UNIT	PAPER NUMBER
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2654

DATE MAILED: 07/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/605,709

Applicant(s)

DAMERAU ET AL.

Examiner

ABUL K. AZAD

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 April 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This action is in response to the communication filed on December 18, 2002.
2. Claims 1-6 are pending in this action. Claims 1-5 have been amended. Claim 6 has been newly added. Title and specification have been amended. The applicant deletes the word "conversational" from the specification, since after the amendment still the invention directed to the system that carries on dialog with a user, so according to meaning of "conversational" the scope of the invention will not changed.
3. The applicant's arguments with respect to claims 1-5 have been fully considered but they are not deemed to be persuasive. For examiner's response to the applicant's arguments or comments, see the detailed discussion in the Response to the Arguments section.

Specification

4. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

At Page 3, 2nd paragraph (lines 4-14) contains an embedded hyperlink and/or other form of browser-executable code.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colbath et al. (US 6,311,182) in view of Sarukkai et al. (US 5,819,220).

As per claim 1, Colbath teaches, "an automated method for setting up an a natural language interface in a Web site comprising the steps of":

"defining a hierarchy of topics into which individual documents or Web pages can be classified" (col. 5, lines 40-67, reads on "text has been marked to indicate the token class or state which belongs"; and here Viterbi Algorithm is hierarchy of the topic);

"generating a keyword index for those documents" (col. 3, lines 1-12, reads on "most probable word strings are searched . . . the output from the speech recognizer is searched against a database of topics stored in a previously formulated and stored list"); and

Colbath teaches, a natural language interface and generates search words that are passed eventually to search engines (col. 2, lines 36-42). Colbath does not explicitly teach, "for each topic in the hierarchy, a set of n-grams to a topic in the topic hierarchy, which set of n-grams is distinctive to the topic and wherein the n-grams maybe sparse or non-sparse n-grams". However, Sarukkai teaches, "for each topic in the hierarchy, a

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set of n-grams to a topic in the topic hierarchy, which set of n-grams is distinctive to the topic and wherein the n-grams maybe sparse or non-sparse n-grams" (col. 7, line 27 to col. 8, line 11; col. 10, lines 16-24). Therefore, it would have been obvious to use n-grams of keywords for each group of pages in the topic hierarchy because Sarukkai teaches to use n-grams in order to improve speech recognition accuracies (col. 10, lines 35-36), the speech recognizer then boots the probability of these web triggered word sets, while determining the best word sequence (col. 9, lines 36-40).

As per claim 2, Colbath does not explicitly teach, "wherein the step of generating a keyword index comprises the step of extracting sparse n-grams of keywords for each group of pages in the topic hierarchy". However, Sarukkai teaches, "wherein the step of generating a keyword index comprises the step of extracting sparse n-grams of keywords for each group of pages in the topic hierarchy" (col. 9, lines 19-22, reads on "n-gram language model score using the HTML sources of the documents recently viewed"). Therefore, it would have been obvious to use n-grams of keywords for each group of pages in the topic hierarchy because Sarukkai teaches to use n-grams in order to improve speech recognition accuracies (col. 10, lines 35-36), the speech recognizer then boots the probability of these web triggered word sets, while determining the best word sequence (col. 9, lines 36-40).

As per claim 3, Colbath teaches, "further comprising the step of optionally reviewing and editing the keyword index" (col. 2, lines 20-35, reads on "the search

engine may be retrieve web pages found which are displayed for the user. There may be words returned that are highlighted and further search via the identification module to be used as links for generating particularity and more detailed information"; here further search is done by edition the key words).

As per claim 4, Colbath teaches, "an automated method for setting up an instance of natural language interface in a web site comprising the steps of:"

"automatically inducing a topic hierarchy by examining a structure of the Web site" (col. 4, lines 1-14, reads on "these hypertext link words highlighted point to specific classes of subject matter");

"creating rules from the n-grams, wherein each topic has associated rules that are used to decide if a new input document or query references the topic" (col. 5, line 40 to col. 6, line 17, rules is Viterbi algorithm, Viterbi path follows leaf pages).

Colbath does not explicitly teach, "creating rules from the n-grams, wherein each topic has associated rules that are used to decide if a new input document or query references the topic; creating n-grams from pages in the Website that are associated with a topic in the topic hierarchy wherein the n-grams may be sparse n-grams or non-sparse n-grams. However, Sarukkai teach, "creating rules from the n-grams, wherein each topic has associated rules that are used to decide if a new input document or query references the topic; creating n-grams from pages in the Website that are associated with a topic in the topic hierarchy wherein the n-grams may be sparse n-grams or non-sparse n-grams" (col. 9, lines 19-22, reads on "n-gram language model

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score using the HTML sources of the documents recently viewed” and col. 10, lines 16-36, here creating rules from the n-grams is inherent). Therefore, it would have been obvious to use n-grams of keywords for each group of pages in the topic hierarchy because Sarukkai teaches to use n-grams in order to improve speech recognition accuracies (col. 10, lines 35-36), the speech recognizer then boots the probability of these web triggered word sets, while determining the best word sequence (col. 9, lines 36-40).

As per claim 5, Colbath teaches, “wherein the step of creating rules for a classification engine is performed automatically and further comprising the optional step of manually editing the rules” (col. 5, line 40 to col. 6, line 17, rules is Viterbi algorithm, Viterbi path follows leaf pages, which is automatically performed, it is inherent to manually edit the rules”).

As per claim 6, it is interpreted and thus rejected for the same reasons set forth in the rejection of claim 2.

Response to Arguments

7. The applicant argues: “Colbath et al. do not teach or suggest an automatic method for setting up a Web query interface. In fact, Colbath et al. is completely lacking any suggestion to set up a query interface. Instead, Colbath et al. teach only methods for conducting web searches using voice commands”.

It is unclear from above statement as to whether or not Colbath et al. do teach or suggest an automatic method for setting up a Web query interface.

The applicant further argues: "the teaching of Colbath et al. do not include or suggest generating a keyword index as in the present invention".

The examiner disagrees with applicants above assertion because Colbath teaches above limitation at col. 2, lines 36-42, particularly reads on "the utterances are passed to a speech recognizer that accepts natural continuous speech patterns and generates search words that are passed eventually to search engines", here natural language interface reads on "accepts natural continuous speech patterns" and generating a keyword index reads on "generates search words".

The applicant argues: "Sarukkai et al. Do teach the use of n-gram models however, the teaching of Sarukkai are not really applicable to the present invention because they are not directed toward the set-up of a natural language interface".

In response to applicant's argument the examiner point out that the natural language interface is shown at Fig. 3, element 30.

The examiner likes to point out followings based on the applicant's arguments and explanation:

See *In re Schering Corp. v. Geneva Pharmaceuticals Inc.*, 64 USPQ2d 1032 (DC NJ 2002) decided August 8, 2002. **The prior art disclosure need not be express in order to anticipate.** Even if a prior art inventor does not recognize a function of his or her process, the process can anticipate if that function was inherent. **To establish inherency**, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and **that it would be so recognized by persons of ordinary skill. Inherency is not necessarily coterminous with the knowledge of those of ordinary skill in the art. Artisans of ordinary skill**

may not recognize the inherent characteristics or functioning of the prior art.

However, the discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's functioning, does not render the old composition patentably new to the discoverer. **Insufficient prior understanding of the inherent properties of a known composition does not defeat a finding of anticipation.**

See also **MPEP 2144.01 - Implicit Disclosure**, "[I]n considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom." In re Preda, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968).

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Abul K. Azad** whose telephone number is **(703) 305-3838**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richemond Dorvil**, can be reached at **(703) 305-9645**.

Any response to this action should be mailed to:

Commissioner for Patents
Washington, D.C. 20231

Or faxed to:

(703) 872-9314


(For informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center's Customer Service Office whose telephone number is **(703) 306-0377**.

Abul K. Azad

July 23, 2003


Richemond Dorvil
Primary Examiner